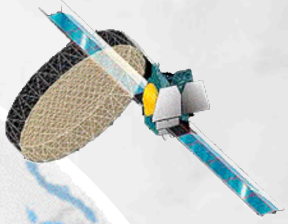
BOEING
Turning Goals Into Reality
2002 Conference
Impact of the IT Revolution
on the Airspace System
22 May 2002
Dennis Muilenburg
Vice President - Engineering
Air Traffic Management

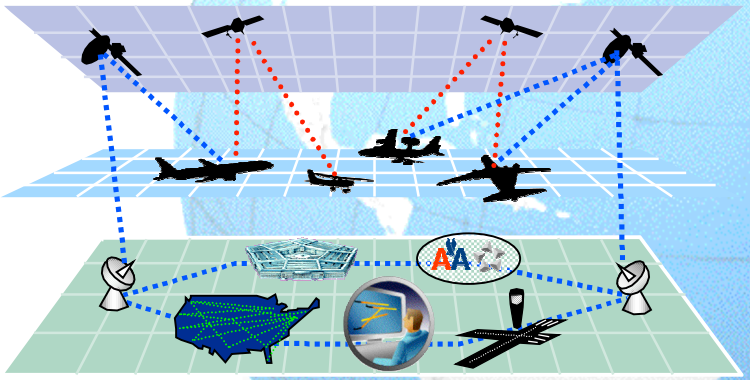
Vision:
Revolutionary ATM Architecture

Trajectory-based airspace management

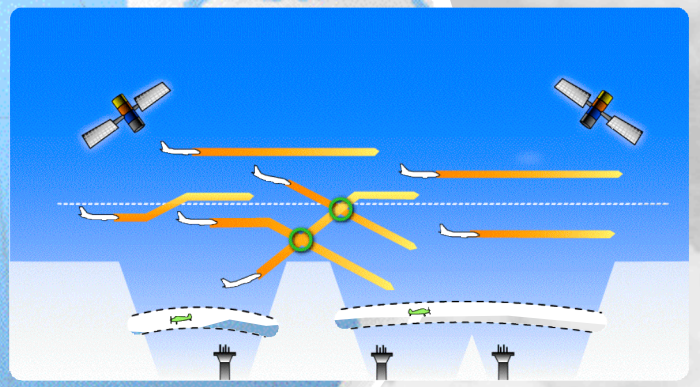


Space-based communication, navigation, and surveillance

Integrated total system solution



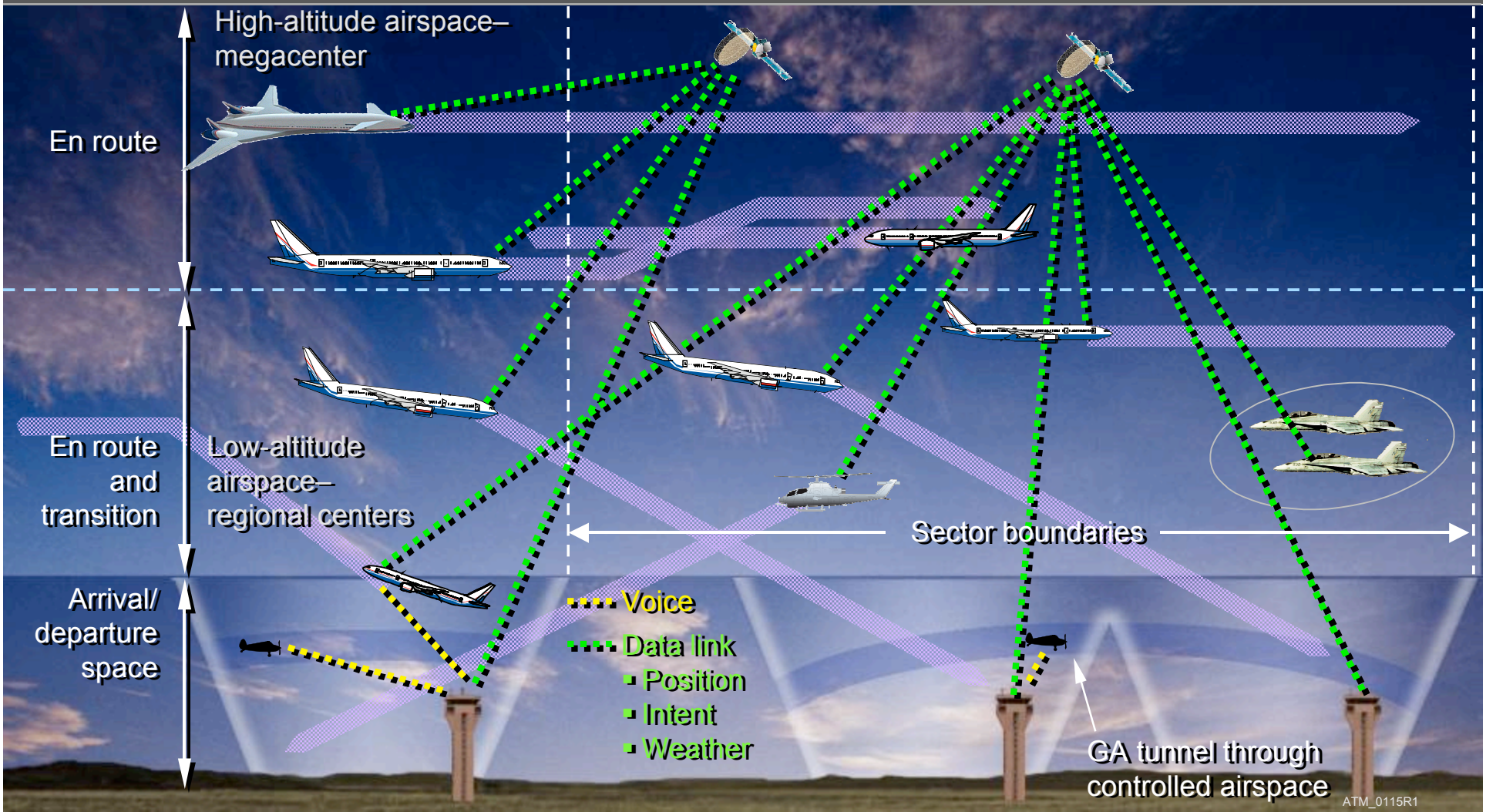
Common Information Network



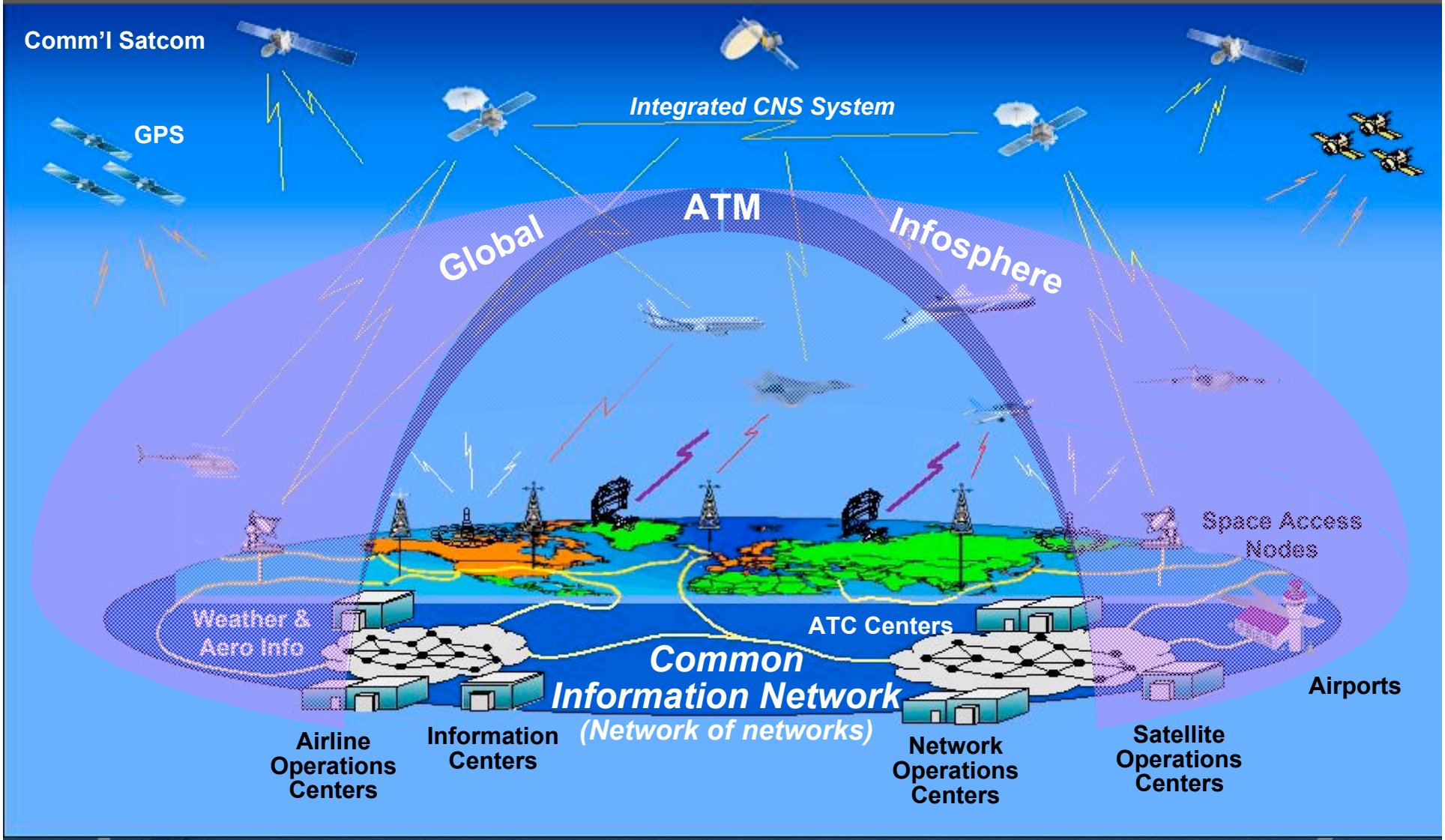
Simplified airspace design

- *Making flying even safer and more secure*
- *Dramatically reducing congestion and delays*
- *Keeping aviation affordable and accessible for all users*
- *Supporting existing initiatives around the globe*

ATM System Design Tomorrow

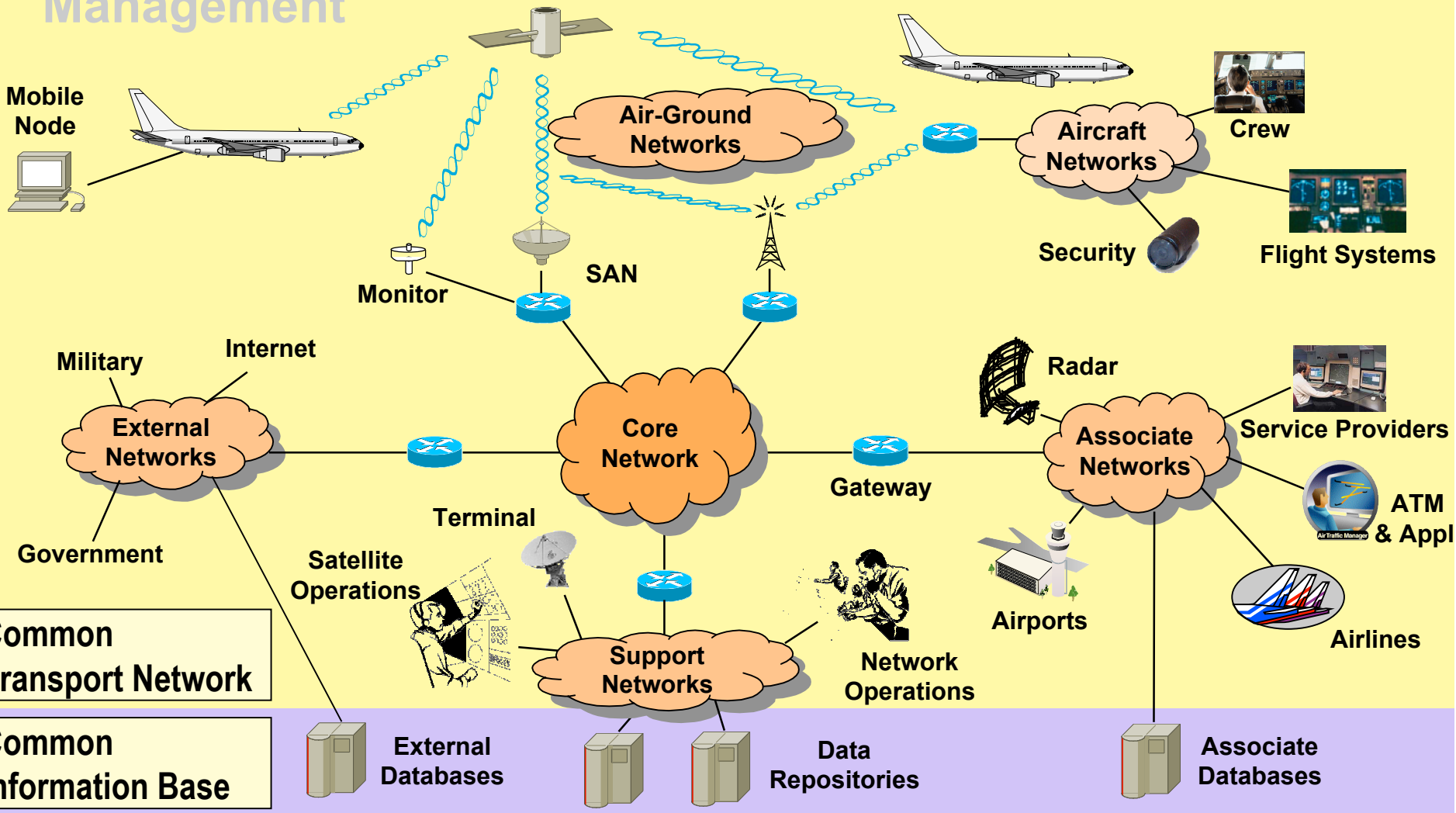


Global System-of-Systems Architecture

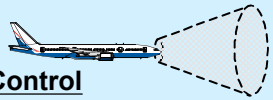
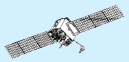
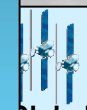
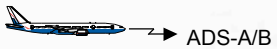
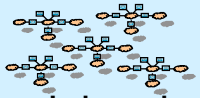


Common Information Network

A Network-Centric Approach to Information Management



ATM Architecture Evolution

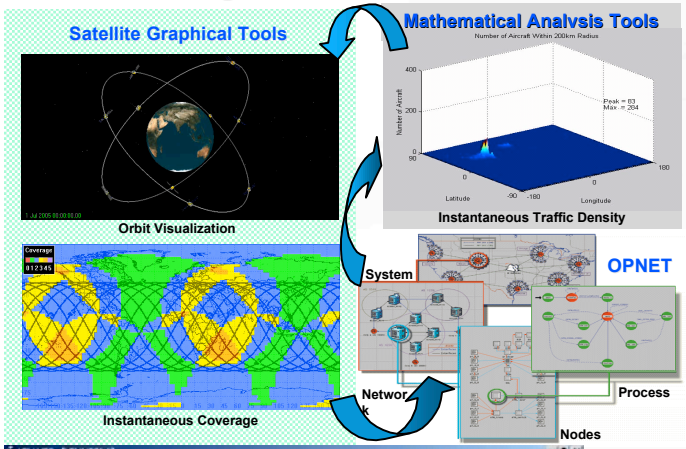
Feature	Current	Evolutionary Steps	Vision
Airspace Design	Fragmented Sectors and Procedures/Criteria		Integrated Sectors RTSP & Revised Separation standards
Air Traffic Management	Short-term Air Traffic Control 		cision t Tools
Communication Services	Multiple Air- Gnd Comms Narrowband Oceanic Satcom		bal d Satcom
Navigation Services	Ground Based Navaids  GPS IIF Regional WAAS		 Global BAS
Surveillance Services	Ground Based Radars  ADS-A/B “Local Area” Air & Ground ADS		
Information Management	 Many Independent Networks Multiple Independent Data Sources		Common Transport Network Common Information Base

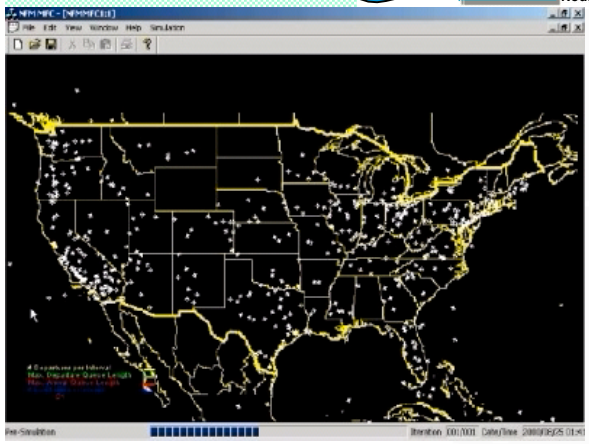
Large-scale integration

Information management creates revolution in aggregate ATM capability

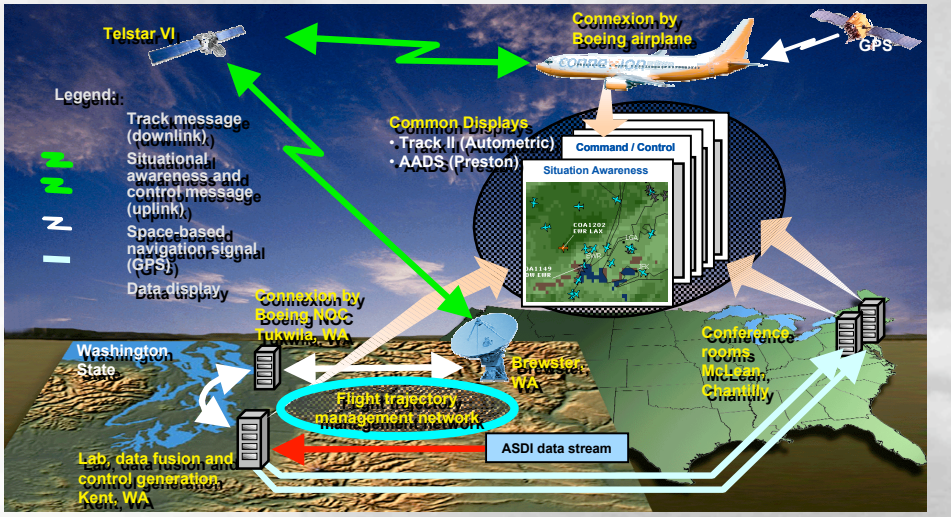
Enablers

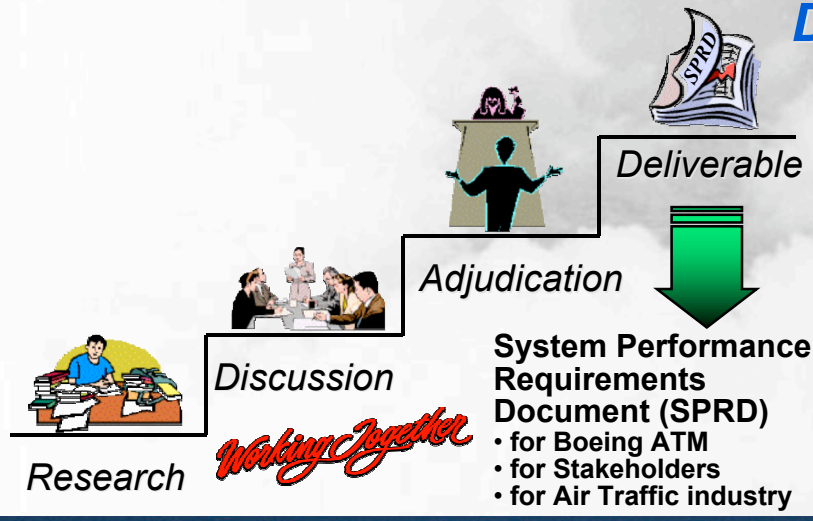
Modeling & Simulation





Demonstrations





System Performance Requirements Document (SPRD)
- for Boeing ATM
- for Stakeholders
- for Air Traffic industry

Working Together